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10/549,466

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EXAMINER

NEURAUTER, GEORGE C

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/549,466	Applicant(s) ZHANG ET AL.	
	Examiner George C. Neurauter, Jr.	Art Unit 2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>09142005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-22 are currently presented and have been examined.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 14 September 2005 was filed before the mailing of an action on the merits. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-11 recite "implementing the new administration information in response to the comparing step." It is unclear as to when the information is implemented since the recitations implies that the comparison results in a plurality of situations and it is unclear as to what situation would trigger the implementation.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-4, 7-9, 12-15, and 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over "WRT51AB Dual-Band Wireless A+B Broadband Router User Guide" ("WRT51AB") in view of "Extensible Authentication Protocol (EAP)" ("EAP") and in further view of "Request for Comments (RFC) 1994: PPP Challenge Handshake Authentication Protocol (CHAP)"

Regarding claim 1, "WRT51AB" disclosed a method for exchanging administration management information with a client terminal in a wireless network, comprising the steps of:

receiving by an access point (referred to throughout the reference as a “router”) a request for an administration management file (“web page”) from the client terminal; transmitting by the access point the administration management file to the client terminal; (see at least Chapter 6 “The Router’s Web-based Utility”, specifically subsection “How to Access the Web-based Utility”; see also various Figures within Chapter 6 which show administration management files displayed on a screen of the client terminal)

“WRT51AB” did not expressly disclose generating by the access point and transmitting by the access point to the client terminal a first parameter; receiving by the access point new administration information and a second parameter from the client terminal; generating by the access point a third parameter using a predetermined algorithm and the first parameter; comparing by the access point the third parameter to the second parameter; and implementing the new administration information in response to the comparing step, however, “WRT51AB” did expressly disclose wherein the access point and the client terminal use a method for establishing a connection to one another for the purpose of allowing the client terminal to securely send new administration information to the access point for implementation of the administration information within the access point. (see at least Chapter 6 “The Router’s Web-based Utility”, specifically subsection “How to Access the Web-based Utility” for various implementations of administration information; see also various Figures within Chapter 6 which show administration management files displayed on a screen of the client terminal) (see at least Appendix C “Configuring Wireless Security”, specifically

subsection "MD5 Authentication for Windows XP", more specifically the sentence "In the drop down box next to EAP type, select MD5-Challenge")

"EAP" disclosed the use of the method for establishing a connection in the same context as disclosed in "WRT51AB" (see at least page 27, section 5.4 "MD5-Challenge"). "EAP" also disclosed that the use of such a method is intended for use in wireless networks (see page 28, specifically "User over the Internet or with wireless media") and that the method is similar to the use of another protocol (see page 27, specifically "The MD5-Challenge Type is analogous to the PPP CHAP protocol [RFC1994]...")

"CHAP" disclosed the protocol as described in "EAP" wherein an authenticator generates and transmits a first parameter (a "challenge value" that is "unique" included within a 'challenge' message) to a peer, the peer sends a second parameter ("value calculated using a 'one-way hash' function") to the authenticator, the authenticator compares the second parameter with a third parameter ("[the authenticator's] own calculation of the expected hash value") and accepts the connection as authentic when the second and third parameters are determined to be the same ("match") (see at least page 2, section 2 "Challenge-Handshake Authentication Protocol" and page 4, section 2.3 "Design Requirements"). "CHAP" also disclosed that this protocol may be implemented upon connection establishment between the authenticator and the peer and at any time after the connection has been established (see at least page 2, specifically "This is done upon initial link establishment, and MAY be repeated anytime after the link has been established.")

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of these references since one of ordinary skill would have clearly recognized that each of the references refer to each other by reference and would have been highly motivated to combine the teachings of the references. The combined teachings of the references disclose a method that allow a client terminal and an access point as described in "WRT51AB" to connect to each other securely using the authentication method as nominally described in "WRT51AB" and "EAP" and as expressly described in "CHAP" and to allow the access point to execute the authentication method at any time including while the client terminal is requesting an administrative file and providing new administration information to the access point as described in "WRT51AB". Therefore, it would have been obvious to one of ordinary skill to achieve the limitations as claimed.

Claim 8 is also rejected since claim 8 recites substantially the same limitations as recited in claim 1.

Regarding claim 2, "WRT51AB", "EAP" and "CHAP" disclosed the method according to claim 1.

"WRT51AB" disclosed wherein the wireless network is a wireless local area network in accordance with IEEE 802.11 standards, the client terminal is a mobile terminal within a coverage area of the wireless local area network, and the administration management file comprises an administration web page. (see at least Chapter 1 "Introduction" and Chapter 6 "The Router's Web-based Utility")

Claim 9 is also rejected since claim 9 recites substantially the same limitations as recited in claim 2.

Regarding claim 3, “WRT51AB”, “EAP” and “CHAP” disclosed the method according to claim 2.

“WRT51AB” and “EAP” did not expressly disclose, however, “CHAP” did disclose wherein the first parameter is a random number (a “challenge value” that is “unique”). (page 4, section 2.3 “Design Requirements”)

Claim 3 is rejected since the motivations regarding the obviousness of claim 1 also apply to claim 3.

Regarding claim 4, “WRT51AB”, “EAP” and “CHAP” disclosed the method according to claim 3.

“WRT51AB” and “EAP” did not expressly disclose, however, “CHAP” did disclose wherein the step of generating a third parameter comprises generating the third parameter using a hash function and the first parameter. (see “[the authenticator's] own calculation of the expected hash value” using the “challenge value”; page 2, section 2 “Challenge-Handshake Authentication Protocol” and page 4, section 2.3 “Design Requirements”)

Claim 4 is rejected since the motivations regarding the obviousness of claim 1 also apply to claim 4.

Regarding claim 7, “WRT51AB”, “EAP”, and “CHAP” disclosed the method according to claim 2.

“WRT51AB”, “EAP”, and “CHAP” did not expressly disclose wherein the transmitting step comprises transmitting the administration web page and Active X control to the client terminal.

Examiner takes Official Notice (see MPEP § 2144.03) that including an ActiveX control with a web page was well known in the art at the time the invention was made. The Applicant is entitled to traverse any/all official notice taken in this action according to MPEP § 2144.03, namely, "if applicant traverses such an assertion, the examiner should cite a reference in support of his or her position". However, MPEP § 2144.03 further states "See also *In re Boon*, 439 F.2d 724, 169 USPQ 231 (CCPA 1971) (a challenge to the taking of judicial notice must contain adequate information or argument to create on its face a reasonable doubt regarding the circumstances justifying the judicial notice)." Specifically, *In re Boon*, 169 USPQ 231, 234 states "as we held in *Ahlert*, an applicant must be given the opportunity to challenge either the correctness of the fact asserted or the notoriety or repute of the reference cited in support of the assertion. We did not mean to imply by this statement that a bald challenge, with nothing more, would be all that was needed". Further note that 37 CFR § 1.671(c)(3) states "Judicial notice means official notice". Thus, a traversal by the Applicant that is merely "a bald challenge, with nothing more" will be given very little weight.

Therefore, one of ordinary skill in the art would have been motivated to modify the teachings of “WRT51AB”, “EAP”, and “CHAP” to include the well known subject matter in the art to achieve the claimed invention since the well known subject matter was well within the level of knowledge and skill of one of ordinary skill and would have

reasonably suggested, given this knowledge, that, in view of the teachings of “WRT51AB”, “EAP”, and “CHAP”, it would be obvious to achieve the limitations of the claim.

Regarding claim 12, “WRT51AB” disclosed a method for exchanging administration management information with an access point in a wireless network using a client terminal, comprising the steps of:

transmitting a request for an administration management file to the access point; receiving the administration management file from the access point; and generating new administration information in response to user input and transmitting the new administration information to the access point. (see at least Chapter 6 “The Router’s Web-based Utility”, specifically subsection “How to Access the Web-based Utility”; see also various Figures within Chapter 6 which show administration management files displayed on a screen of the client terminal)

“WRT51AB” did not expressly disclose receiving a first parameter from the access point; generating a second parameter using a predetermined algorithm and the first parameter; and transmitting the second parameter to the access point, however, “WRT51AB” did expressly disclose wherein the access point and the client terminal use a method for establishing a connection to one another for the purpose of allowing the client terminal to securely send new administration information to the access point for implementation of the administration information within the access point. (see at least Chapter 6 “The Router’s Web-based Utility”, specifically subsection “How to Access the Web-based Utility” for various implementations of administration information; see also

various Figures within Chapter 6 which show administration management files displayed on a screen of the client terminal) (see at least Appendix C "Configuring Wireless Security", specifically subsection "MD5 Authentication for Windows XP", more specifically the sentence "In the drop down box next to EAP type, select MD5-Challenge")

"EAP" disclosed the use of the method for establishing a connection in the same context as disclosed in "WRT51AB" (see at least page 27, section 5.4 "MD5-Challenge"). "EAP" also disclosed that the use of such a method is intended for use in wireless networks (see page 28, specifically "User over the Internet or with wireless media") and that that the method is similar to the use of another protocol (see page 27, specifically "The MD5-Challenge Type is analogous to the PPP CHAP protocol [RFC1994]...")

"CHAP" disclosed the protocol as described in "EAP" wherein a peer receives a first parameter (a "challenge value" that is "unique") from an authenticator; the peer generates a second parameter ("value calculated" using a hash function) using a predetermined algorithm ("hash function") and the first parameter and the peer transmits the second parameter to the access point (see at least page 2, section 2 "Challenge-Handshake Authentication Protocol" and page 4, section 2.3 "Design Requirements"). "CHAP" also disclosed that this protocol may be implemented upon connection establishment between the authenticator and the peer and at any time after the connection has been established (see at least page 2, specifically "This is done upon

initial link establishment, and MAY be repeated anytime after the link has been established.”)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of these references since one of ordinary skill would have clearly recognized that each of the references refer to each other by reference and would have been highly motivated to combine the teachings of the references. The combined teachings of the references disclose a method that allow a client terminal and an access point as described in “WRT51AB” to connect to each other securely using the authentication method as nominally described in “WRT51AB” and “EAP” and as expressly described in “CHAP” and to allow the access point to execute the authentication method at any time including while the client terminal is requesting an administrative file and providing new administration information to the access point as described in “WRT51AB”. Therefore, it would have been obvious to one of ordinary skill to achieve the limitations as claimed.

Claims 13 and 14 are rejected since claims 13 and 14 recite substantially the same limitations as recited in claim 2 and 7 respectively.

Regarding claim 15, “WRT51AB”, “EAP”, and “CHAP” disclosed the method according to claim 13.

“WRT51AB” and “EAP” did not expressly disclose, however, “CHAP” did disclose wherein the step of generating a second parameter comprises generating the second parameter using a hash function and the first parameter. (see “value calculated using a ‘one-way hash’ function” which uses the “challenge value”; page 2, section 2

"Challenge-Handshake Authentication Protocol" and page 4, section 2.3 "Design Requirements")

Claim 15 is rejected since the motivations regarding the obviousness of claim 12 also apply to claim 15.

Claims 18-20 are also rejected since these claims recite substantially the same limitations as recited in claims 12, 13, and 15 respectively.

Claims 5-6, 10-11, and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over "WRT51AB", "EAP" and "CHAP" as applied to claims 3 and above, and further in view of "Request for Comments (RFC) 1321: The MD5 Message-Digest Algorithm" ("MD5").

Regarding claim 5, "WRT51AB", "EAP" and "CHAP" disclosed the method according to claim 3.

"WRT51AB", "EAP" and "CHAP" did not expressly disclose wherein the step of generating a third parameter comprises generating a third parameter using a hash function, the first parameter, a password, and a string parameter, however, "CHAP" disclosed generating a third parameter by using a hash function and a first parameter as described above and that the protocol described in the reference uses a specific hash function ("MD5").

"MD5" expressly disclosed that the hash function is able to generate a parameter using an arbitrary number of parameters of any type (see at least page 1, specifically "This document describes the MD5 message-digest algorithm. The algorithm takes as input a message of arbitrary length...")

It would have been obvious to one of ordinary skill in the art at the time the invention was made to generating a third parameter using a hash function, the first parameter, a password, and a string parameter since the disclosures of "MD5" in view of the other references clearly suggest to one of ordinary skill in the art that a parameter could be generated using a hash function and any number of parameters. Therefore, the disclosures of the reference would have suggested to one of ordinary skill in the art to use any of a selection of well known parameters including a string and password in addition to the parameters described in the combined teachings of "WRT51AB", "EAP" and "CHAP" and expected the generation of a third parameter in the manner claimed to be successful.

Claim 10 is also rejected since claim 10 recites substantially the same limitations as recited in claims 3 and 5 in combination.

Regarding claim 6, "WRT51AB", "EAP", "CHAP", and "MD5" disclosed the method according to claim 5.

"WRT51AB", "EAP", "CHAP", and "MD5" did not expressly disclose wherein the string parameter corresponds to the new administration information.

However, these differences are only found in the nonfunctional descriptive material and are not functionally involved in the steps recited. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability. See *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the nonfunctional descriptive material with the claimed invention because such data does not functionally relate to the steps in the method claimed and because the subjective interpretation of the descriptive material does not patentably distinguish the claimed invention.

Claim 11 is also rejected since claim 11 recite substantially the same limitations as recited in claim 6.

Regarding claim 16, “WRT51AB”, “EAP”, and “CHAP” disclosed the method according to claim 13.

“WRT51AB”, “EAP”, and “CHAP” disclosed wherein the step of generating a second parameter comprises generating the second parameter using a hash function, the first parameter, a password and a string parameter, however, “CHAP” disclosed generating a second parameter by using a hash function and a first parameter as described above and that the protocol described in the reference uses a specific hash function (“MD5”).

“MD5” expressly disclosed that the hash function is able to generate a parameter using an arbitrary number of parameters of any type (see at least page 1, specifically “This document describes the MD5 message-digest algorithm. The algorithm takes as input a message of arbitrary length...”)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to generating a second parameter using a hash function, the first parameter, a password, and a string parameter since the disclosures of “MD5” in view

of the other references clearly suggest to one of ordinary skill in the art that a parameter could be generated using a hash function and any number of parameters. Therefore, the disclosures of the reference would have suggested to one of ordinary skill in the art to use any of a selection of well known parameters including a string and password in addition to the parameters described in the combined teachings of "WRT51AB", "EAP" and "CHAP" and expected the generation of a second parameter in the manner claimed to be successful.

Regarding claim 17, "WRT51AB", "EAP", "CHAP" and "MD5" disclosed the method according to claim 16.

"WRT51AB", "EAP", "CHAP" and "MD5" did not expressly disclose wherein the string parameter is generated from the new administration information.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to generate a string parameter from a value such as the new administration information since "WRT51AB" expressly disclosed that new administration information is generated from user input and it would have suggested to one of ordinary skill in the art that the new administrative information could have been expressed as a string parameter based on the disclosures of "WRT51AB" regarding web pages which are known to be expressed as a file expressed as a string format well known as HTML. Therefore, it would have been obvious to achieve the limitations as recited in the claim.

Claims 21 and 22 are also rejected since these claims recite substantially the same limitations as recited in claims 16 and 17 in combination.

Conclusion

It is noted that the column, line, and/or page number citations used in the prior art references as applied by the Examiner to the claimed invention are for the convenience of the Applicant to represent the relevant teachings of the prior art. The prior art references may contain further teachings and/or suggestions that may further distinguish the citations applied to the claims, therefore, the Applicant should consider the entirety of these prior art references during the process of responding to this Office Action. It is further noted that any alternative and nonpreferred embodiments as taught and/or suggested within the prior art references also constitute prior art and the prior art references may be relied upon for all the teachings would have reasonably suggested to one of ordinary skill in the art. See MPEP 2123.

The prior art listed in the PTO-892 form included with this Office Action disclose methods, systems, and apparatus similar to those claimed and recited in the specification. The Examiner has cited these references to evidence the level and/or knowledge of one of ordinary skill in the art at the time the invention was made, to provide support for universal facts and the technical reasoning for the rejections made in this Office Action including the Examiner's broadest reasonable interpretation of the claims as required by MPEP 2111 and to evidence the plain meaning of any terms not defined in the specification that are interpreted by the Examiner in accordance with MPEP 2111.01. The Applicant should consider these cited references when preparing a response to this Office Action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George C. Neurauter, Jr. whose telephone number is 571-272-3918. The examiner can normally be reached on Monday-Friday 9am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn, can be reached on 571-272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/George C. Neurauter, Jr./
Primary Examiner, Art Unit 2143